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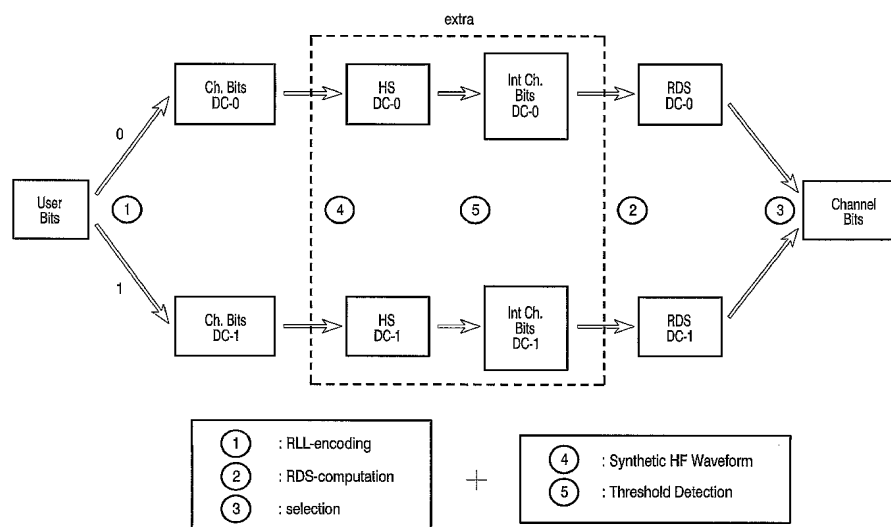
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(54) Title: DC-CONTROLLED ENCODING FOR OPTICAL STORAGE SYSTEM



(57) Abstract: A loss of performance of slicer adaptation at high capacities due to the mismatch between the exact bits used in the computation of the RDS for the DC-control on the one hand and the often erroneous threshold decisions that are preliminarily made based on the HF waveform on the other hand, is resolved by performing a new method of DC- control at the encoder: the RDS is modified such that it is not based on the exact channel bits, but on the threshold decisions from a synthetic HF signal waveform that is generated based on a nominal MTF (modulation transfer function) or its IRF (impulse response function) of the channel. In this way, the impact of the erroneous threshold decisions in the receiver are already taken into account at the encoder, and the slicer control is no longer negatively affected thereby.

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